SPLASH SHOT





WACH, DAM, CLINTON, LAYING THE LAST STONE. JUNE 24, 1905.

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hen indoor plumbing became commonplace in Boston near the end of the 19th century, the city's Metropolitan Water Board (MWB) sought out a new water source to satisfy the region's booming population. The result was the Wachusett watershed system, a massive public works undertaking that took a decade of painstaking labor and more than \$21 million - more than \$592 million, adjusted for inflation - to build. Upon its completion in 1906, Wachusett was considered the largest public water supply reservoir in the world, with about 246 billion L (65 billion gal) of capacity.

The Metropolitan Waterworks Museum (Boston) provides a glimpse into Wachusett's grueling construction process in its exhibit, "Workers of Wachusett, 1896-1906," which is on display through fall 2019.

The exhibit features samples from more than 6000 historical photos. The photos have been enlarged from original plate-glass negatives. The scenes show how a century of technological advancement has changed the way water professionals do their jobs. Courtesy of Metropolitan Waterworks Museum (Boston)



MWB aimed to secure a new water supply that would serve citizens of Boston and more than 25 surrounding municipalities. To do that, workers excavated and cleared more than 1600 ha (4000 ac) of land, erected a 62-m-tall (205-ft-tall) masonry dam, impounded the Nashua River, built a reservoir with 60 km (37 mi) of shoreline, and tunneled 43 km (27 mi) through rock and soil to connect the new Wachusett system with the region's existing water sources. Courtesy of Metropolitan Waterworks Museum (Boston)



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Engineers used steam-powered, pneumatic tools to split, square, and dress heavy granite blocks for the dam's outer surface. In the tunnels, workers wearing hardened leather helmets toiled by candlelight beneath rocky ceilings supported only by jacks. Death and injury were common occurrences during the tunneling process, in part, because of the use of dynamite to clear bedrock. No formal workplace safety laws were yet in effect. Courtesy of Metropolitan Waterworks Museum (Boston)







Few locals were willing to perform this back-breaking labor for an average of 60 hours per week for the meager pay offered. As a result, about two-thirds of the Wachusett workforce consisted of newly arrived Italian immigrants; African-American laborers also made up a large proportion.

Most labor crews lived in makeshift settlements for the duration of their work assignments. The temporary homes were made chiefly of wood planks and sod roofs. The settlements, managed by contractors, typically featured a commissary where laborers would exchange some of their pay to receive daily necessities at inflated prices from the person or company that owned the settlement.

Courtesy of Metropolitan Waterworks Museum (Boston)





Here, a work crew lays Wachusett Dam's final stone in 1905, surrounded by project managers and dignitaries. Once the dam, aqueduct, and reservoir were constructed, it took until May 1908 for the reservoir to fill to capacity for the first time. The project permanently changed the landscape of central Massachusetts and enabled Boston's population to grow exponentially into the 20th century. Courtesy of Metropolitan Waterworks Museum (Boston)





Now managed by the Massachusetts Water Resources Authority, a successor to MWB, the Wachusett system has operated continuously for more than 100 years. It was listed on the U.S. National Register of Historic Places in 1990. To learn more about the "Workers of Wachusett, 1896-1906" exhibit or the Metropolitan Waterworks Museum, browse its website at bit.ly/waterworks-museum. Martinde/Creative Commons

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